

Mineral Industry Surveys

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SILICON IN APRIL 2005

Preliminary data for April 2005 indicate that domestic production of silicon ferroalloys plus metal, on a gross-weight basis, increased by 2% compared with that in March 2005, according to the U.S. Geological Survey. Net domestic shipments were 9% less than those of the prior month. Stocks increased by 4% compared with those of March 2005, owing to adjustments in inventory and in-plant consumption of ferrosilicon to produce magnesium ferrosilicon and other miscellaneous alloys.

Based on a gross-weight comparison of March 2005 export data (table 2) to those of February 2005, ferrosilicon exports increased by 46%, owing primarily to an increase in the

ferrosilicon, more than 55% silicon, trade category. Silicon metal exports increased by 16%, owing to increases in the high-purity (greater than 99.99% silicon) and "other" silicon metal trade categories.

Based on a gross-weight comparison of March 2005 import data (table 3) to those of February 2005, ferrosilicon imports increased by 4%, owing to increases in the ferrosilicon, 55%-80% silicon, other, and magnesium ferrosilicon trade categories. Silicon metal imports increased by 49% over the same period because of increases in the 99.00%-99.99% and "other" silicon trade categories.

Prices, cents per pound, silicon content

	<u>50% Ferrosilicon¹</u>	<u>75% Ferrosilicon²</u>	<u>Silicon Metal²</u>
April 7	60.00-62.00	50.00-51.00	78.00-81.00
April 14	60.00-62.00	50.00-51.00	78.00-81.00
April 21	59.00-61.00	50.00-51.00	78.00-81.00
April 28	59.00-61.00	50.00-51.00	78.00-81.00

¹Source: Ryan's Notes, North American transaction price.

²Source: Platts Metals Week, dealer import price.

TABLE 1
U.S. PRODUCTION, SHIPMENTS, AND PRODUCER STOCKS OF SILICON ALLOYS AND METAL IN 2005^{1, 2, 3}

(Metric tons)

Material	Gross production ⁴		Net shipments		Stocks, April 30
	April	Year to date	April	Year to date	
Ferrosilicon, all grades ^{5, 6}	17,900	70,800	14,700	63,300	18,100
Silicon metal, excludes semiconductor grades	13,000	51,600	11,600	46,500	11,100

¹Data are rounded to no more than three significant digits.

²Includes U.S. Geological Survey estimates.

³Data for silvery pig iron (less than 25% silicon) withheld to avoid disclosing company proprietary data.

⁴Includes in-plant consumption, as in production of magnesium ferrosilicon and other miscellaneous alloys.

⁵Ferrosilicon categories were aggregated to avoid disclosing company proprietary data.

⁶Includes miscellaneous silicon alloys.

TABLE 2
U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN MARCH 2005^{1, 2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon:						
More than 55% silicon:						
Canada	1,040	625	\$955,000	2,130	1,280	\$2,070,000
Colombia	--	--	--	5	4	7,800
Malaysia	--	--	--	11	8	15,600
Mexico	149	89	198,000	333	200	414,000
Netherlands	--	--	--	49	38	78,800
Total	1,190	714	1,150,000	2,530	1,530	2,580,000
Other ferrosilicon:						
Canada	165	82	187,000	630	315	686,000
Colombia	--	--	--	14	6	19,500
Costa Rica	8	4	8,400	8	4	8,400
Mexico	119	60	140,000	210	105	238,000
Spain	--	--	--	7	4	6,470
United Kingdom	--	--	--	4	2	3,050
Total	292	146	335,000	872	436	962,000
Total ferrosilicon	1,480	861	1,490,000	3,400	1,960	3,550,000

See footnotes at end of table.

TABLE 2--Continued
U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN MARCH 2005^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Metal:						
More than 99.99% silicon:						
China	161	XX	\$7,110,000	396	XX	\$16,000,000
Finland	10	XX	325,000	44	XX	1,200,000
Germany	131	XX	6,260,000	402	XX	16,400,000
Italy	9	XX	846,000	22	XX	2,110,000
Japan	477	XX	27,900,000	1,690	XX	82,000,000
Korea, Republic of	98	XX	5,480,000	227	XX	12,100,000
Malaysia	10	XX	1,550,000	27	XX	5,050,000
Norway	182	XX	6,110,000	342	XX	11,400,000
Taiwan	37	XX	1,520,000	106	XX	4,690,000
United Kingdom	48	XX	2,040,000	99	XX	5,040,000
Other (28 countries)	24	XX	1,690,000	86	XX	4,790,000
Total	1,190	1,190 ^e	60,800,000	3,440	3,440 ^e	161,000,000
99.00% - 99.99% silicon:						
Australia	12	12	16,600	12	12	16,600
Brazil	84	84	215,000	189	187	465,000
France	--	--	--	140	139	371,000
Germany	35	35	96,200	37	37	99,600
India	25	24	72,500	25	24	72,500
Japan	4	4	5,070	24	23	40,000
Mexico	3	3	12,000	15	15	28,900
Singapore	6	6	9,080	6	6	9,080
Trinidad and Tobago	--	--	--	14	13	24,300
United Kingdom	19	19	27,300	40	39	56,200
Other (4 countries)	7	7	9,290	14	14	19,200
Total	195	193	463,000	515	510	1,200,000
Other silicon:						
Canada	61	59	78,000	142	138	186,000
China	82	79	165,000	106	103	190,000
Germany	15	15	20,000	23	22	33,100
Hong Kong	--	--	--	16	16	93,000
Japan	29	28	80,200	171	166	372,000
Korea, Republic of	--	--	--	413	401	545,000
Mexico	9	9	65,500	99	96	322,000
Netherlands	21	21	252,000	65	62	612,000
Russia	--	--	--	224	218	296,000
United Kingdom	3	2	3,380	21	20	154,000
Other (9 countries)	14	14	19,100	30	29	57,300
Total	234	227	683,000	1,310	1,270	2,860,000
Total silicon metal	1,620	1,610	62,000,000	5,260	5,220	165,000,000

^eEstimated. XX Not applicable. -- Zero.

¹Presentation of monthly data is based on the year-to-date quantities (gross weight) of the top 10 countries.

²Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN MARCH 2005^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon:						
55% - 80% silicon, over 3% Ca:						
China	--	--	--	38	17	\$53,000
Germany	--	--	--	10	6 ³	13,300
United Kingdom	--	--	--	5	3	28,900
Total	--	--	--	53	26	95,100
55% - 80% silicon, Other:						
Brazil	103	78	81,800	190	142	166,000
Canada	963	728	937,000	2,880	2,180	2,650,000
China	14,100	10,600	9,990,000	32,900	25,000	23,800,000
France	354	253	705,000	829	580	1,600,000
Germany	68	49	256,000	134	99	553,000
India	--	--	--	20	14	19,000
Norway	1,630	1,210	1,860,000	2,950	2,180	3,440,000
Russia	4,500	3,380	3,240,000	14,500	10,700	10,200,000
Venezuela	5,200	3,900	4,350,000	11,000	8,250	8,780,000
Total	26,900	20,200	21,400,000	65,300	49,100	51,200,000
Magnesium ferrosilicon:						
Argentina	--	--	--	517	240	441,000
Brazil	259	114	234,000	676	302	611,000
Canada	472	220	445,000	1,390	643	1,320,000
China	528	253	451,000	1,630	765	1,190,000
Germany	15	9	34,000	15	9	34,000
India	20	5 ³	20,500	21	14 ³	41,100
Japan	32	15	50,500	63	29	101,000
Netherlands	82	38	59,600	109	51	76,100
Norway	1,290	601	1,120,000	3,130	1,460	2,680,000
Total	2,700	1,250	2,420,000	7,550	3,510	6,500,000
Other ferrosilicon:						
Brazil	--	--	--	20	10	41,700
Canada	710	195	539,000	2,400	621	1,850,000
China	--	--	--	100	44	100,000
India	115	66	102,000	191	123	232,000
Russia	--	--	--	5	3	4,900
Total	825	261	641,000	2,720	801	2,230,000
Total ferrosilicon	30,400	21,700	24,500,000	75,700	53,500	60,000,000

See footnotes at end of table.

TABLE 3--Continued
U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN MARCH 2005^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Metal:						
More than 99.99% silicon:						
China	(4)	XX	\$25,400	6	XX	\$97,200
Denmark	1	XX	318,000	2	XX	587,000
Germany	131	XX	7,550,000	258	XX	20,400,000
Italy	37	XX	2,110,000	89	XX	4,150,000
Japan	39	XX	3,250,000	151	XX	10,300,000
Korea, Republic of	31	XX	1,090,000	39	XX	2,000,000
Norway	1	XX	120,000	1	XX	120,000
Philippines	--	XX	--	179	XX	253,000
Poland	10	XX	29,900	10	XX	29,900
Spain	1	XX	4,970	2	XX	16,600
Other (2 countries)	1	XX	38,300	1	XX	40,400
Total	252	252 ^e	14,500,000	736	736 ^e	38,000,000
99.00% - 99.99% silicon:						
Australia	739	734	1,300,000	2,190	2,170	3,760,000
Brazil	3,830	3,800	4,880,000	13,100	13,100	16,900,000
Canada	1,700	1,690	2,750,000	4,730	4,700	7,430,000
France	440	437	581,000	820	814	1,090,000
Norway	625	621	1,360,000	2,000	1,990	5,190,000
Philippines	377	138 ³	582,000	604	265 ³	923,000
South Africa	4,640	4,800 ³	6,640,000	7,150	7,080 ³	9,970,000
Sweden	--	--	--	12	12	86,400
Total	12,400	12,200	18,100,000	30,600	30,100	45,400,000
Other silicon:						
Belgium	--	--	--	57	6 ³	62,100
Brazil	1,190	1,180	1,550,000	3,350	3,300	4,320,000
Canada	875	842	1,440,000	2,390	2,330	4,100,000
China	429	423	487,000	1,010	996	1,120,000
Japan	9	(4)	20,000	20	(4) ³	32,000
Norway	277	271	379,000	1,050	1,020	1,430,000
Philippines	20	20	27,400	31	20	42,600
South Africa	--	--	--	230	224	274,000
Sweden	--	--	--	160	157	250,000
Ukraine	--	--	--	6	(4) ³	6,290
Other (2 countries)	220	216	286,000	220	216	291,000
Total	3,020	2,950	4,190,000	8,520	8,280	11,900,000
Total silicon metal	15,600	15,400	36,800,000	39,900	39,100	95,300,000

^eEstimated. XX Not applicable. -- Zero.

¹Presentation of monthly data is based on the year-to-date quantities (gross weight) of the top 10 countries.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³All or part of these data have been referred to the U.S. Census Bureau for verification.

⁴Less than 1/2 unit.

Source: U.S. Census Bureau.